# GLOSSARY

TERMS

Aesthetic improvement: Disposal site appearance improvement which makes it more pleasing and acceptable to the general public living and working around the site.

Agricultural use: The beneficial use of dredged material by the application of dewatered or slurry dredged material to farm land, for the purpose of improving the soil for farming.

Aquaculture: A term applied to any commercial aquatic farming operation for freshwater or saltwater organisms such as crayfish, shrimp, or catfish. See Mariculture.

Aquatic habitat: Typical submerged communities extending from near sea, river, or lake level down several feet, such as tidal flats, oyster beds, clam flats, seagrass beds, or fishing reefs.

Atterburg liquid limit: A standard measure used in the Unified Soil Classification System (USCS) soil classifications which must be made in order to determine plasticity, or weight—bearing ability, of soil or dredged material.

Avian habitat: Any area that meets all or part of the life requirements of birds, a very large and wide—ranging group of species with a variety of habitat requirements.

Beach: The open, sandy habitat occurring between a body of water and upland areas that is not colonized by marsh or woody vegetation.

Beach biota: All living organisms which occupy the intertidal and dune zones of sandy beaches.

Beach nourishment: The practice of hydraulically pumping clean, sandy sediment onto an eroded beach for the purpose of restoration.

Beneficial uses: All productive and positive uses of dredged material, which cover broad use categories ranging from fish and wildlife habitat development, to human recreation, to industrial/commercial uses.

Biological calendar: The life cycle of any living organism, especially pertaining to any critical area requirements where a species is more vulnerable than at other times during the life cycle.

Biochemical oxygen demand (BOD): The amount of oxygen required during the aerobic decomposition of organic matter in a body of water. High BOD usually indicates large amounts of organic material.

Borrow material: Soil or sediment taken from a site for use in structure construction, such as sandy sediment dredged and pumped to restore an eroded beach, or clay taken to build a levee or dike.

Borrow pit: The term used to describe the site remaining after borrow material has been removed. In upland areas, the site frequently becomes a body of water. In marine areas, the site becomes a deep hole in a bay or near-shore area.

Bottomland hardwoods: Deciduous forests of dominant tree species which occur on soils that are moisture-saturated or inundated during a portion of the growing season. These forests are in serious decline due primarily to agricultural land clearing and flood control.

Breeding season: The period of time used by a living organism for mating, nesting or denning, rearing of young, and other activities related to reproduction.

Bulk density: An indicator of size and arrangement of various soil particles, and the weight measurement by which the entire soil volume is considered.

Carrying capacity, ecological: The ability of a given habitat or ecosystem to perpetually sustain stable populations of living organisms.

Carrying capacity, recreational: The ability of a given recreational site to sustain planned levels of human recreational use without environmental damage.

Cation exchange capacity (CEC): The capacity of soil or dredged material particulates to adsorb nutrients which then become available for plant growth.

Chemical oxygen demand (COD): The amount of oxygen required to oxidize organic chemical compounds and oxidizable inorganic compounds in a body of water. These chemicals rapidly oxidize, requiring great quantities of oxygen.

Chlorinated hydrocarbons: Polychlorinated biphenyls (PCBs) and similar compounds which can be harmful to living organisms, and which can sometimes be found in certain dredged material substrates, especially in urban areas and especially in fine-grained material.

Clam flat: Any aquatic habitat, both natural and man-made, occupied by colonies of clams, including those occurring in shellfish farming operations.

Clay: That fraction of soil or dredged material whose grain size distribution is 0.002 mm or less, generally referred to as fine-grained material.

Colonial-nesting: A term used to describe the habit of numerous bird species, especially waterbirds, of nesting in large groups, often with nests only 1 to 2 feet apart.

Colonies: Large groups of breeding birds that habitually nest together for protection and sociability, either in single species groups, such as least terns, or in mixed species groups, such as herons, egrets, and ibises.

Confined disposal facility (CDF): A term used to describe a disposal site structure built to hold dredged material in a totally confined condition. Often CDFs are built to permanently hold contaminated sediments.

Consolidation: A term used to describe the effect caused by dewatering and desiccation of dredged material substrates, usually resulting in significant lessening of volume of the material.

Consumptive use: A term usually used in reference to hunting and fishing on a site, in which a product (fish or wildlife) is obtained by the site user.

Contaminants: Heavy metals, oil and grease, chlorinated compounds, excess nutrient loads, and other substances found in dredged material that can be toxic to living organisms under certain environmental conditions.

Containment area: Any site used for the temporary or permanent confinement of dredged material, and which may or may not have a permanent retaining structure.

Contour benching: The soil conservation practice of building soil benches or terraces along natural or man-made contour lines on erodible slopes.

Contour farming: The agronomic practice of planting erodible slopes along natural or man-made contour benches in alternating and rotating strips of grass cover and row crops.

Coral reef: A fragile, living, marine structure made up of a number of species of coral organisms that occurs in tropical waters of the earth. In the United States, coral reefs only occur off the coasts of Florida, Hawaii, and Puerto Rico.

Creche: The term used for groups of chicks of some seabird species that form when the chicks leave their nests at a few days of age and congregate.

Critical habitat: Any habitat officially designated or generally accepted as essential to any or all life requirements of an endangered or threatened plant or animal.

Crop rotation: The agronomic practice of rotating grass cover and row crops from year to year to improve soil fertility and prevent erosion.

Crops, food: Agricultural and horticultural crops planted as food sources for humans, domestic livestock, and wildlife, and which can sometimes be grown on dredged material substrates.

Crops, nonfood: Horticultural and forestry crops planted for use by humans but not as food, such as timber, paper products, sod, and Christmas trees, and which can sometimes be grown on dredged material substrates.

Cross dike: A dike structure built within and across a CDF, usually for the purpose of compartmentalizing the CDF for incremental dredging.

Desiccation cracks: The phenomenon which occurs on fine-grained dredged material or deposited river sediment in which large cracks form as the material dewaters and consolidates.

Dewatering: The practice of actively or passively removing water from dredged material inside disposal sites.

Dike: An engineering structure built for the purpose of retaining dredged material or training sediments.

Disposal alternative: Any method of disposal and dredged material use that is proposed by the CE, one of which will be found to be acceptable to the CE, sponsors, resource agencies, and the public.

Disposal site: Any area, confined or unconfined, that is used for the deposition of dredged material.

Dissolved oxygen (DO): Oxygen molecules dissolved into bodies of water that are necessary for the respiration of most aquatic organisms. High concentrations of DO are usually present in free-flowing, tumbling water, but can be provided artificially in fish farms by special aerator pumps.

Diversion channels: The practice of building ditches or channels to divert rainwater and snowmelt on erodible slopes and soils.

Dragline trenching: The practice of dewatering dredged material by making trenches inside disposal sites with dragline equipment.

Dredged material: Any sediment under a body of water which is dredged by any method and displaced or removed to a disposal location.

Dredging window: That period of time when it is environmentally safe to dredge and deposit dredged material in an area occupied by species of concern, such as in the nonbreeding season in areas with important waterbird colonies or nonspawning season for locally important fish species.

Ecological stage: A specific period of growth or development of an ecological community; i.e., grassland is an intermediate stage in the developmental process of a new disposal site that will ultimately become a forest. See Ecological Succession.

Ecological succession: The progression of a site from early growth stages to climax; i.e., on a new, coastal dredged material island the stages of succession over time are: bare ground, sparse herbaceous cover, dense herbaceous cover, shrub/grasses, shrub/trees, and finally, maritime forest.

Effluent quality: The measure of quality of water coming over the weir in a confined dredged material disposal site during and after a disposal operation.

Endangered species: Plant or animal species of such limited and declining populations that they have been legally placed on a Federal or state Endangered Species List. Federally listed species and their needs are published in the Federal Register. Species that decline to the endangered status usually do so as a result of degradation or destruction of habitat.

Environmental legislation: Federal and state laws enacted to reestablish and maintain environmental quality in the United States. Many apply directly and indirectly to dredging activities.

Equipment accessibility: On disposal sites, this term refers to the ability of heavy equipment to economically and efficiently travel to and work in disposal sites and handle dredged material.

Erodible slopes: Slopes of more than 3 feet per 100 feet that, when bare of vegetative cover are highly erosive, especially those primarily made of silt and silty clay soils.

Erosion: The removal of soil or rock (or dredged material) by precipitation, wind, or wave action, resulting in site degradation or destruction.

Feral animal: Any domestic animal such as a dog or cat that has gone wild or that was born to wild parents, survives by its own resources, and is no longer or has never been a pet or domesticated.

Fill material (construction): In this case, soil or dewatered dredged material used as foundation material in upland areas for any structure from roads to buildings to landfill.

Fill material (Section 404): Any material used to replace an aquatic area with upland, or for changing the bottom elevation of a water body.

Fish farm: The commercial production of several species of fish or shellfish (catfish, trout, red fish, shrimp, crayfish, and others) in carefully maintained, man-made ponds or in protected, maintained natural coastal bays.

Fishing reef: Any underwater structure, natural or man-made, which changes the bottom topography and offers cover, food, and protection to fish and other aquatic organisms.

Fish nursery areas: Natural or man-made shallow water and marshy areas where small fish and fry can feed and find cover from predators.

Floating pipeline: A dredged material discharge pipeline that is supported in water and in marsh by floats which prevent its sinking into the substrate during a dredging operation.

Floating tire breakwater: A temporary, floating structure made of foam-filled vehicle rubber tires. These form modules that are erected and anchored in moderate wave energy areas to protect the shoreline and marsh plants establishing behind the breakwater.

Floodplain islands: Natural or man-made islands occurring within the flood-plain of a river or lake, including those within the body of water and those which only become islands at high water stages.

Forestry use: The beneficial use of dredged material sites for the production of timber and timber products such as cottonwood or eucalyptus tree plantations.

Foundation qualities: The physical, chemical, and biological condition of the dredged material substrate which makes it suitable or unsuitable for beneficial uses, whether for building structures or for nonstructural use.

Freshwater marsh: Periodically inundated herbaceous vegetation community occurring in streams, lakes, and perched wetlands (salinity is near 0 ppt).

Gabions: Wire baskets filled with coarse rock material which are used with filter cloths as temporary retention or breakwater structures.

Game mammal: Any mammal species hunted by gun, archery, or trapping, and that has a legal harvest season designated for the species.

Gas vents: Vents purposely placed in solid waste landfills to direct the flow of built-up gas from decaying garbage to the atmosphere where it can dissipate.

Grassed waterways: The practice of conserving soil on runoff ditches on slopes by gently sloping the ditch sides and perpetually maintaining them in mowed grass to trap sediment and stop erosion.

Grazing area: Any land used for domestic livestock pasture. In this case, dredged material disposal areas that have been developed into pastureland.

Green manure: Legume or grass crops which are grown solely for fertilizer and while still in active growth are turned into the topsoil layer with a plow or disk to provide texture and nutrients to the top soil.

Habitat development: The construction and maintenance of a habitat for wildlife, finfish, and/or shellfish. In this case, refers to the creation of fish and wildlife habitat on dredged material disposal sites.

Habitat diversity: The occurrence within one ecosystem of several types of wildlife or fisheries habitat; i.e., on large dredged material islands, maritime forest, shrub communities, grass/herbaceous areas, bare ground, and marsh may all occur on different parts of the island simultaneously.

Habitat management: Deliberate and wise actions taken on dredged material disposal sites for the purpose of managing for plant or animal populations or communities or for target wildlife or fish species.

Habitat manipulation: Deliberate use of dredged material deposition to maintain a particular stage of ecological succession. Generally, such manipulation is used to maintain bare ground or very early stages.

Habitat patterning: The natural or deliberate positioning of different habitats in an ecosystem to provide diversity for the target wildlife or fish species.

Habitat protection: Deliberate and prudent posting, patrolling, fencing, or guarding of dredged material disposal sites to protect a fish or wildlife population and habitat from predators and excessive human intrusion.

Heavy metals: Metals which have been proven to be hazardous to living organisms ingesting them in sufficient quantities; generally, cadmium, nickel, lead, zinc, copper, mercury, chromium, and others.

Herbaceous vegetation: Plants without woody stems such as grasses, most legumes, forbs, and wildflowers (annuals or perennials).

Herbicides: Chemical compounds developed and used for the control or destruction of undesirable vegetation. They are often highly selective and specifically developed for target plant species.

Historic preservation: The protection from destruction and the maintenance of historic sites, such as Indian mounds in the Mississippi River floodplain or colonial archaeological sites on coastal islands.

Horticulture use: The beneficial use of dredged material disposal sites as nursery or orchard sites, or of dewatered dredged material as an ingredient in potting or plant bed soil mixtures.

Hydraulic pipeline: A dredged material discharge pipeline that carries slurry material from the dredging site to the disposal site. It may be floating or positioned on land, and may be movable or stationary.

Incremental dredging: The deposition of dredged material in a disposal site in small lifts over an extended period of time.

Industrial/commercial use: The beneficial use of dredged material for port, harbor, airport, building, or other industrial and commercial enterprise construction.

Innoculated seeds or rootstock: Seeds or roots exposed to beneficial fungi or other soil organisms that enhance the growth and survival of the plants. These mycorrhizal organisms aid in nutrient uptake and in root protection from toxic and saline soils.

Intermittent dredging: The shutting on and off of a dredging operation on a scheduled basis (i.e., 1 hour on/l hour off) to allow settling to occur and effluent water to move at a slower rate.

Intertidal zone: That land area between mean low water and mean high water that is inundated periodically by tides.

Island: An upland habitat distinguished by its isolation and use, and completely surrounded by water or wetlands. Often, islands are fringed with or include interior wetland habitats.

Land enhancement: The improvement in use, quality, and value of land through habitat management, manipulation, and/or protection.

Land use: The use, beneficial or otherwise, of a specific land parcel. In this case, the planned or actual land use of dredged material disposal sites.

Land use control: The legal jurisdiction and ownership or lessee rights to control the use of a specific land parcel. In this case, the CE’s rights of control of disposal sites.

Leachate drain: Layers of pervious material such as sand or gravel placed to intercept leachate on a disposal site or solid waste landfill and drain it to an area for treatment or recirculation.

Leaching: The percolation of nutrients and other compounds such as salt within the top layers of soil into subsoil layers and ground-water zones.

Legume: Any member of the Lugumacae family, typically having the important ability to fix and use atmospheric nitrogen to enhance plant growth and survival. Clovers, lespedezas, and acacias are excellent examples.

Levees: Earthen structures built to contain periodic floodwater in river systems within specific areas of the floodplain.

Lifts: A term describing deposits of dredged material into containment facilities. Each lift generally is allowed to dewater before another lift is deposited.

Limiting factor: Any physical, chemical, or biological factor which is the critical limitation on growth and survival of an organism; i.e., smooth cordgrass is limited in its growth by the boundaries of the intertidal zone.

Liners and barriers (leachate control): Physical structures or cloths used to seal off disposal areas to prevent translocation of contaminants into lower level of adjacent soil and ground or surface water.

Liner shrubs: Small, potted and rooted shrub cuttings generally not more than 2 years of age that are developed for commercial and landscaping sales. (Larger, older shrubs are usually called container stock.) In this case, liner shrubs that can be grown in a soil/dredged material mix, or that can be planted on disposal sites for purposes of habitat or recreational use.

Long-range project goals: Project goals which extend over a period of not less than 10 and up to 50 years, especially as they pertain to ultimate land use of disposal sites.

Long-term management plans: Engineering and environmental management plans developed for disposal sites or dredging reaches that have at least a 10-year and not more than a 50-year life.

Low maintenance habitat: Habitat that requires almost no labor-intensive management activities such as mowing or protection and that, once developed, is generally allowed to progress at its own pace.

Low wave energy: Wave action with tidal ranges averaging not more than 1 to 2 feet, in areas naturally or artificially protected from wind fetches and ship traffic.

Maintenance dredging: The cyclic dredging of the same area over a period of time to remove accumulating sediments and to maintain ship and barge traffic.

Manmade habitat: Any habitat that was deliberately created by humans, i.e., a saltmarsh built of dredged material.

Manmade island: Any island that was deliberately created by humans, generally only referring to those built by the CE of hydraulically pumped dredged material.

Marginal soil: Any soil that by virtue of its physical and chemical characteristics is not suitable for development for crops or other beneficial uses. In actuality these soils are often developed by landowners anyway, and are further degraded, depleted, and eroded.

Mariculture: The practice of growing in commercial enterprises marine crops of shrimp, oysters, squid, clams, red fish, and other sea animals that are high-consumption species (by humans). Mariculture is practiced more in Japan and other Asian countries than in the United States.

Maritime forest: A coastal forest generally consisting of wax myrtle, groundsel tree, live oak, and other species tolerant of near-constant sea breezes and occasional salt spray.

Material rehandling: The requirement of handling dredged material more than one time, such as with booster pumps, hopper barges, or as dewatered and stockpiled material.

Mean high water (mhw): Mean high water is the highest level of inundation under normal conditions to which the tide flows over the land.

Mean low water (mlw): Mean low water is the lowest level under normal conditions to which the tide drops in the tidal cycle.

Migratory species: All bird species which make semiannual migrations and who are protected by the U.S. Migratory Bird Treaty Act and its amendments. Also, all fish species which migrate for spawning or other purposes into and out of waters of the United States. (No mammals within U.S. areas where dredging occurs are migratory.)

Mine spoils: The material removed and/or processed in the mining of a site that is left behind as the mining operation moves forward to unmined areas.

Mitigation: The replacement or substitution of a habitat in repayment for habitat that has been degraded or destroyed. Generally, mitigation is habitat replacement-in-kind, but this is not always the case.

Moderate wave energy: Wave action with tidal ranges of 2 or more feet in unprotected areas, but with waves that are not normally severe or extremely forceful upon impact.

Monitoring: The process of collecting (before, during, and after disposal) physical, chemical, and environmental data to determine impacts of a particular dredging and dredged material disposal operation.

Monoplanting: Plantings of only one species on a site, i.e., cottonwood tree plantations, smooth cordgrass saltmarshes, or agronomic crops in large fields.

Multiple-head discharge pipe: A discharge pipe with more than one head or more than one opening on the same head to allow better spreading and distribution of dredged material. This type of pipe is not used except in low-flow discharges.

Multipurpose use: More than one beneficial use of the same dredged material disposal site.

Natural colonization: The habitation by natural invasion of any site by generally highly adaptable and opportunistic species, i.e., smartweeds colonizing a newly exposed mudflat in a lake, river, or reservoir.

Nesting beaches: Sand beaches in tropical areas used by sea turtle females for digging nests and laying eggs. Increasing use by humans of nesting beaches makes these endangered species increasingly vulnerable to loss of eggs and young. Beaches are also used by certain seabird species for nesting, for example, the endangered California least tern.

Nesting island: Any island, natural or manmade, which is used by colonial-nesting birds as breeding habitat.

Nesting substrate: Any foundation used for supporting nests, i.e., trees for wading birds; bare sand for terns and skimmers; sparse grass for gulls; wet marshy mounds for rails, loons, grebes, and others; and grassy meadows for ducks, geese, and swans.

New work dredging: Dredging in an area that has not previously been dredged, and which often includes clay bottom or bedrock material.

Nonconsumptive use: Use activities of disposal sites which do not harvest or destroy animals or plants on the site, i.e., bird watching, hiking, jogging, or bike riding.

Nongame species: Any animal species that is not legally hunted or trapped.

Nonmotile benthos: Benthic organisms occurring both in the intertidal zone and in deeper water that cannot move out of the way of dredging operations and that are severely or fatally impacted by dredging.

Nutrient load: The level of nutrients, primarily nitrogen, phosphorus, and potassium, in soil or dredged material usually caused by agricultural runoff from fertilized fields. Excess nutrient loads can occasionally cause detrimental effects in disposal sites, especially in ponded areas.

Nylon fabric sandbags: Large-capacity (4 by 8 feet) bags made of woven nylon, which are hydraulically filled in place with sand, and which are used as temporary breakwaters in moderate wave energy environments.

Ocean dumping: The practice of dredged material disposal via oceangoing barge into a designated disposal site in deep, open water, often miles from shore.

One-time dredging: The placement of dredged material into a disposal site only once; then the site is converted to other use.

Open-water disposal: The practice of dredged material disposal anywhere into open water; i.e., in the Lower Mississippi River above Head of Passes almost all dredged material is sidecast into open water to allow it to remain in suspension and move downriver.

Oyster bed: Any foundation used by oysters as a place of attachment to grow and complete their life cycles, i.e., rocks, submerged boats, or old oyster shells in shallow water.

Permeability: The ease with which water can move or pass through a soil or dredged material.

pH: The standard measure of 0.0 to 14.0 of acidity and alkalinity of soil, water, and other liquids. A pH of 7.0 is neutral, and uncontaminated rainfall is generally 6.0 to 7.0. A pH of 5.5 to 7.5 is the range generally found best for plant and animal growth.

Planktonic larva: Floating or weakly swimming and often microscopic aquatic juvenile forms of organisms such as coral or shellfish.

Plant material: Any plant growing on a site or intended for growth on a site can be referred to as plant material.

Plant nursery: A commercial or public enterprise where plants are propagated and grown for sale or for public use sites. Public plant nurseries are generally those of the U.S. Forest Service and the U.S. Soil Conservation Service.

Plant propagation: The planting and growth of plants, which includes obtaining and maintaining propagules; preparing the site; planting, fertilizing and making soil amendments; and cultivating the site.

Plasticity: A measure, obtained by calculating the Atterburg liquid limit and the plasticity limit, which determines the use and load-bearing ability of a fine-grained soil or dredged material.

Ponding: The collection of water by gravity flow on any site. In this case, a disposal site which may hold ponded water due to consolidation or improper weir placement, or purposely for beneficial uses such as aquaculture.

Problem soil: Any soil (or dredged material) that is not suitable for beneficial use due to soil physical or chemical conditions or engineering properties.

Progressive trenching: The progressive deepening of surface drainage ditches lower than the base of crust desiccation cracks on fine-grained dredged material as the water table falls.

Propagules: Any piece of plant material that will form a new plant, i.e., seeds, tubers, transplant sprigs, rhizomes, corms, bulbs, and cuttings.

Rare or threatened species: Plant or animal species of declining populations that have not reached the threshold of being considered endangered to the point of extinction.

Reclamation: The process of restoring and revegetating a disturbed site to or near its previous habitat quality.

Recreation use: The beneficial use of a dredged material disposal site for recreation, including camping, boating, swimming, picnicking, hiking, and other recreational activities.

Remote sensing: In this case, the use of high-intensity, infrared aerial photography for habitat mapping, plant community identification, and broad-scale planning.

Retaining structure: A temporary or permanent structure used for holding dredged material on a limited basis, not to be confused with a CDF.

Revegetation: The process of reestablishing vegetation cover on any disturbed or newly formed site through a variety of methods.

Riverine environment: The river island, on-bank, and near-bank plant and animal community within a floodplain.

Riverine Utility Craft (RUC): A specially developed craft for use in water and soft mud whose flotation is provided by twin styrofoam-filled rotors which make trenches that are useful in dewatering fine-grained dredged material. The RUC does not work well in coarse-grained material.

Rotating disposal pipe: A disposal pipe that has a swinging discharge head to allow dredged material to be placed over a wider area. This pipe is only for low-flow discharge and can be used to help maintain an intertidal elevation for marsh creation.

Salinity: The measure of soluble salts in soil or water (or dredged material) which make it suitable or unsuitable for particular beneficial uses.

Saltmarsh: Herbaceous vegetation growing at a saline intertidal elevation. Primary U.S. saltmarsh species at mean low water are smooth cordgrass on the east and gulf coasts and Pacific cordgrass on the west coast.

Sanctuary: Any area totally and legally protecting designated plant or animal species, for example, dredged material islands which have been designated waterbird sanctuaries.

Sand: That fraction of soil or dredged material whose grain size distribution is 2.00 to 0.05 mm, generally referred to as coarse grained.

Sandbar: A natural or man-made bare sand area within the channel of a river, either attached to the bank or in midstream.

Sand dike: A temporary dike structure made chiefly of sand and often emplaced via hydraulic dredging of sandy underwater deposits.

Scour: Physical forces exerted by intense underwater currents which cause digging out of substrates around in-water structures and along shorelines.

Seabirds: A group of birds which live around and over large bodies of water. In the United States, they live primarily in coastal bays, oceans, estuaries, large rivers, the Great Lakes, and the Great Salt Lake, and include gull, tern, and skimmer species.

Seagrass bed: A fragile, shallow, underwater marine ecosystem colonized by eel grass, turtle grass, shoal grass, and other marine plant species. These species are very specific in their requirements for nonturbid, clean, open water and can be greatly impacted by dredging.

Sea turtles: Extremely vulnerable, endangered or threatened, motile vertebrate marine animals whose nesting seasons and movements can conflict with dredging operations.

Sediment: Any soil material that has washed or blown into a body of water and settled to the floor to become a part of the substrate.

Sedimentation: The process of deposition of sediment in water through settling out of heavier coarse-grained particles. This term also refers to the deposition of alluvial sediment in a floodplain at river flood stage.

Seedbed preparation: The clearing, plowing, disking, and cultivation of a soil or dredged material to prepare it for seeding.

Seed farm: A farm used for the commercial production of seeds, generally associated with agronomic crops such as food grains and soybeans, but also including flower and vegetable seed production.

Seed mixture: A general mixture of locally acclimated seeds of several grass and legume species (usually at least three but not more than eight to ten) for planting in sites to become natural areas and grazing meadows.

Self-weight consolidation: Consolidation caused by the actual weight of the dredged material placed inside the disposal site, which forces water out of the material and to the surface or into underdrainage systems.

Shear strength: That point and beyond at which a dredged material substrate begins to consolidate and develop strength as a soil material after leaving the slurry state.

Ship-generated waves: Waves that are a direct result of ship traffic rather than wind or tidally influenced, and that are often severe on shorelines for a short period after ship or barge passage.

Shoreline stabilization: The erosion protection of shorelines by engineering structures such as riprap or by biological features such as saltmarshes or willow banks.

Silt: The fraction of soil or dredged material whose grain size distribution is 0.05 to 0.002 mm, generally referred to as fine grained.

Silt curtain: A floating fabric curtain device suspended around a dredging operation or disposal site to prevent rapid movement of suspended sediment out of the area.

Site maintenance: The care and management of disposal sites to accomplish the planned project and site goals.

Site specific: Rigid environmental and physical conditions which pertain to development and management of a particular site.

Site suitability, biological: The biological conditions of soil, substrate, and surrounding area which limit or enhance a dredged material site for beneficial uses. Such factors are size, distance to point of disturbance, water depth, vegetation stage, existing biological resources, presence or absence of a dike, and others.

Site suitability, chemical: The chemical conditions of the substrate and soil which limit or enhance a dredged material site for beneficial uses. This includes nutrient levels, sulfur, heavy metals, pesticide compounds, salinity, oil and grease, and others.

Site suitability, physical: The physical conditions of soil, substrate, slope, wave action, climate, water, stages, etc., that limit or enhance a dredged material site for beneficial uses.

Site suitability, socioeconomic: The social and economic conditions which limit or enhance a dredged material site for beneficial uses.

Site topography: On disposal sites, the various elevations, hills and mounds, and ponded areas achieved by the position of the disposal pipe. Topography can be altered by mechanical means for beneficial uses.

Slurry: A term describing the mixture of soil or sediment and water hydraulically dredged and pumped to a disposal site.

Socioeconomic benefits: The positive benefits to a community where a disposal site is located In terms of dollars returned to the community in jobs, recreational use, and general improvement of public perception and well-being.

Socioeconomic considerations: Social and economic conditions and opinions which must be evaluated for any project to determine project feasibility and cost:benefit ratios, as well as the project good to the community.

Sod farm: The commercial production and sale of sod blocks, usually of lawn and golf course grasses such as Tifgreen and Zoysia. In this case, sod growing on dredged material as a beneficial use.

Soil amendment: Fertilizers, lime, mulches, and any material added to the soil or dredged material to improve its quality for beneficial uses.

Solid waste landfill: Any area, usually associated with urban communities, where disposal of human refuse and garbage takes place. The waste is capped daily with at least 6 inches of soil (or dewatered dredged material).

Soluble salts: The fraction of salts in a moist soil (or dredged material) which becomes available to plants for adsorption.

Spawning season: The particular biological time in which mating and egg-laying occurs in fish species.

Species: A taxonomic designation assigned to a distinct group of plants or animals which can only breed with another like organism, and which is usually characterized by individual differences from any other species.

Species specific: Rigid environmental and physical conditions which pertain to development and maintenance of habitat for a particular species.

Sport fishery: A term which applies to fishing areas with sustainable populations of certain species of game fish.

Spur dike: A partial dike built within a CDF for purposes of directing and slowing flow of the slurry within the site to allow more sedimentation to occur before the slurry reaches the weir outlet.

Stockpiling: The practice of placing dewatered dredged material in a holding area, where it is slated for future beneficial uses.

Striking off: The method used in strip mine reclamation or dewatered dredged material spreading in which the disposal ridges are knocked into the valleys between those ridges, thereby leveling the site.

Strip-cropping: The agronomic practice of alternating a row crop with a grass or legume cover crop or a fallow strip to conserve soil and improve soil texture.

Strip mine reclamation: The grading, shaping, and revegetating of strip-mined soil to regain lost habitat and to prevent erosion and downstream toxicity problems.

Subsidence: An elevational change caused by the inability of foundation material to hold up the load placed on it by dredged material or natural deposition, for example, the Louisiana coastal marshes where subsidence is occurring at a very rapid rate.

Substrate: The foundation upon which all things exist; for example, the soil is a substrate supporting plants, animals, buildings, and other structures; trees are the substrate in which birds build nests; the bay bottom is the substrate supporting benthic communities.

Suspended solids: Soil particles and organic matter which remain suspended in the water column after agitation from dredging, or during movement downstream in river systems.

Swamp: A periodically inundated wooded area occurring in the southern United States, generally dominated by forest trees such as bald cypress and/or tupelo gum.

Target species: A desired species or group of species toward which habitat development and management are directed.

Temporary breakwater: A structure with a design life of 1 to 5 years erected for the purposes of slowing down or preventing wave action and for protection of the area behind the breakwater.

Terraces: A low earth structure created on farms and erodible land where steep slopes exist to conserve soil and aid in rainfall adsorption.

Tidal flat: An intertidal area exposed at low tide on which no marsh grows, usually called a mudflat. Tidal flats are often colonized by high numbers of small benthic organisms which are fed upon by a variety of other species such as shorebirds.

Tidal range: The ebb and flow over land between mean low water and mean high water where tide water is periodically present.

Tolerance level: That point at which a living organism can no longer survive a chronic or short-term environmental, physical, or chemical condition, such as a toxicity of heavy metals or pesticide compounds or extreme turbidity.

Toxicity: A term describing the limit of intolerance of organisms to survive lethal chronic or short-term subjection to certain chemical and contaminating substances, or physical and environmental conditions.

Transplant: The most common type of propagule used in wetland habitat development and in landscaping work; this term applies to a well-rooted, vegetative propagule of several stems or a single strong stem.

Transport: Any method used for the transportation of dredged material, usually by hydraulic pipeline or barge, or if dewatered, by barge, truck, or railroad.

Tree farm: A farm used only to grow trees of economically important species, such as cottonwoods or pine plantations for timber and paper, or firs and spruces for Christmas trees.

Truck farm: A farm used for the production of vegetables, some types of cut flowers, and some types of vine products and fruits, which are commercially marketed.

Turbidity: A condition in bodies of water where high sediment loads cause clouding of the water to varying extents. In the case of feeding animals, turbidity limits visual feeding. It also will shade out or smother aquatic vegetation.

Unconfined disposal site: Any dredged material disposal site where the material is not placed behind a retaining structure but is allowed to flow freely out of the disposal site.

Underdrainage dewatering: A method of dewatering dredged material disposal areas, where drainage materials such as sand or gravel layers or tiles are permanently emplaced before any dredged material is deposited.

Uplands: Any terrestrial community characterized by vegetation not usually tolerant of inundation, ranging from bare ground to mature forest.

Value methodology: Determination of potential socioeconomic benefits of dredged material sites by use of a matrix which categorizes and describes the effects and impacts.

Vegetation: Plants of all species and families, rooted, attached, or floating, deciduous or evergreen, woody or herbaceous, commercial or noncommercial. In this case, referring to any plant growing on dredged material or affected by dredging and dredged material placement.

Vegetation control: The practice of managing vegetation to maintain certain stages of growth through mechanical, biological, or chemical methods.

Waterbirds: A diverse group of birds recognized by scientists according to their colonial-nesting habits and their feeding in water; the group can be further refined into wading birds, diving birds, and seabirds.

Waterfowl: A group of birds which includes ducks, geese, and swans. (No swan can be legally hunted in North America.)

Water retention: The moisture-storing capacity of a soil or dredged material that is strongly influenced by the arrangement and quantity of fine particles and organic matter.

Weir: One type of outfall structure built into the dike of a CDF at the farthest point from the discharge pipe.

Weir placement: The location of the weir in a CDF for the best possible drainage of ponded water and for the longest distance for slurry travel from the discharge pipe to allow more dropout of sediment.

Wetland: Periodically inundated communities characterized by vegetation which survives in wet soils, ranging from coastal intertidal marshes to freshwater swamps and bottomland hardwoods. These areas usually have quite distinctive vegetation communities.

Wildlife: Any animal species or group of animals that range free and are not normally commercially produced for human food or use; includes both game and nongame species.

Wind fetch: A term used to describe the open area and distance across a bay or body of water in which wind can exert energy on waves to cause them to be higher and more forceful upon impact with shorelines.

Wind waves: Waves caused by wind action, especially across shallow bays with long wind fetches.

Wooded wetland: A wetland that is dominated by trees and shrubs, and includes swamps, bottomland hardwoods, and wooded bogs.

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